

University of Oxford Low Density Tunnel

HS3

<p>Location: Oxford</p>	<p>Designation: Hypersonic Rarefied Flow,</p>
<p>Owner(s): Department of Engineering Science University of Oxford Parks Road, Oxford, OX1 3PJ United Kingdom</p>	<p>Performance Working gas: Air (Knudsen No: 0.001-0.3) Mach Number: 5.5 – 9 Maximum Flow Speed: n/a Reynolds No: $60 \times 10^3/m - 120 \times 10^3/m$ Total Pressure: n/k Dynamic Pressure: n/a Total Temperature: n/k Turbulence intensity: n/k Run Time: Continuous Typical Recharge Time: n/a.</p>
<p>Test Section Size: 0.18m (diameter).</p>	
<p>Operational Status: Operational</p>	<p>Testing Capabilities: Model Support: Magnetic suspension and balance system. Data Acquisition: Multiple channel high speed data acquisition system. Outputs: Forces and Moments, pressure, temperature. Flow visualisation: high speed Schlieren, hot films, thermographic liquid crystal.</p>
<p>Number and Type of Staff: Scientific: n/k Technical Support: n/k</p>	
<p>Test support: Workshop for wind tunnel model design, manufacture and modification capability.</p>	
<p>Specialist Rigs:</p> <ul style="list-style-type: none"> • Large diffusion pump drive system • Three-dimensional traverse for docking and stage separation simulation. 	